## PATENT COOPERATION TREATY

# **PCT**

## INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

| Applicant's or agent's file reference                                                                                                                                                                                                            | FOR FURTHER see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.                                                                                                            |                                                                                                                    |  |  |  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|--|--|--|
| 03797.00180 International application No.                                                                                                                                                                                                        | ACTION (FORM) OFFICE                                                                                                                                                                                                                                 |                                                                                                                    |  |  |  |
|                                                                                                                                                                                                                                                  | International filing date (day/month/year)                                                                                                                                                                                                           | (Earliest) Priority Date (day/month/year)                                                                          |  |  |  |
| PCT/US 01/19919                                                                                                                                                                                                                                  | 25/06/2001                                                                                                                                                                                                                                           | 26/06/2000                                                                                                         |  |  |  |
| Applicant MICROSOFT CORPORATION                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                      |                                                                                                                    |  |  |  |
| This International Search Report consists of                                                                                                                                                                                                     |                                                                                                                                                                                                                                                      |                                                                                                                    |  |  |  |
| Basis of the report                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                      |                                                                                                                    |  |  |  |
| a. With regard to the language, the in                                                                                                                                                                                                           | nternational search was carried out on the ba<br>ess otherwise indicated under this item.                                                                                                                                                            | sis of the international application in the                                                                        |  |  |  |
| the international search wa<br>Authority (Rule 23.1(b)).                                                                                                                                                                                         | as carried out on the basis of a translation of t                                                                                                                                                                                                    | he international application furnished to this                                                                     |  |  |  |
| contained in the basis of the contained in the internation filed together with the internation furnished subsequently to furnished subsequently to the statement that the subsinternational application as                                       | sequence listing: nat application in written form. national application in computer readable form this Authority in written form. this Authority in computer readble form. sequently furnished written sequence listing of filed has been furnished. |                                                                                                                    |  |  |  |
| Certain claims were foun     Unity of invention is lack                                                                                                                                                                                          | d unsearchable (See Box I).<br>ing (see Box II).                                                                                                                                                                                                     |                                                                                                                    |  |  |  |
| 4. With regard to the <b>title,</b> X the text is approved as sub the text has been establish                                                                                                                                                    | mitted by the applicant. ed by this Authority to read as follows:                                                                                                                                                                                    |                                                                                                                    |  |  |  |
| 5. With regard to the abstract,  the text is approved as sub the text has been establish within one month from the control of the drawings to be publis as suggested by the applicant failed because this figure better control of the drawings. | ed, according to Rule 38.2(b), by this Authoridate of mailing of this international search replaced with the abstract is Figure No.  ant.  It to suggest a figure.                                                                                   | ty as it appears in Box III. The applicant may, port, submit comments to this Authority.  13  None of the figures. |  |  |  |

#### INTERNATIONAL SEARCH REPORT

International application No.

PCT/US 01/19919

Box III TEXT OF THE ABSTRACT (Continuation of item 5 of the first sheet)

A system and method for rendering ink annotations (1302, 1303) for a displayed image (1301) is disclosed. The invention renders annotations (1302, 1303) to mimic how physical ink would appear if similarly applied to physical paper. In one embodiment, the invention uses subtractive rendering to produce combinations of colors. Here, the system subtracts a complement of a color from an existing color to produce the rendered color. The rendered color is the color that is common to the annotation color and the existing color. This operation may be simplified as a binary ADD of the numeric representation of the two constituent colors. Using this invention, the resulting color shown at a given pixel P shows the history of all color layers at the pixel P, rather than merely the last applied color.

#### INTERNATIONAL SEARCH REPORT

International Application No PCT/US 01/19919

A. CLASSIFICATION OF SUBJECT MATTER IPC 7 G06F3/033 G06F G06F3/14 According to International Patent Classification (IPC) or to both national classification and IPC **B. FIELDS SEARCHED** Minimum documentation searched (classification system followed by classification symbols) IPC 7 G06F Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched Electronic data base consulted during the international search (name of data base and, where practical, search terms used) EPO-Internal, WPI Data, PAJ, IBM-TDB, INSPEC C. DOCUMENTS CONSIDERED TO BE RELEVANT Citation of document, with indication, where appropriate, of the relevant passages Relevant to claim No. US 5 920 694 A (SCHWARTZ KRISTA S ET AL) X 1-6, 6 July 1999 (1999-07-06) 9-16. 19-21 column 13, line 11 -column 14, line 25; figures 19-22 χ PATENT ABSTRACTS OF JAPAN 1-6, 11-16,21 vol. 2000, no. 02, 29 February 2000 (2000-02-29) & JP 11 327789 A (RICOH CO LTD). 30 November 1999 (1999-11-30) abstract X US 5 986 665 A (SUMNER MATTHEW ET AL) 1,2,5, 16 November 1999 (1999-11-16) 11,12, 15,21,23 column 1, line 43 - line 65 column 4, line 25 - line 45 Further documents are listed in the continuation of box C. Patent family members are listed in annex. Special categories of cited documents: "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the \*A\* document defining the general state of the art which is not considered to be of particular relevance "E" earlier document but published on or after the international "X" document of particular relevance; the claimed invention filing date cannot be considered novel or cannot be considered to "L\* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) involve an inventive step when the document is taken alone "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such docu-\*O\* document referring to an oral disclosure, use, exhibition or ments, such combination being obvious to a person skilled document published prior to the international filing date but later than the priority date claimed \*&\* document member of the same patent family Date of the actual completion of the international search Date of mailing of the international search report 5 October 2001 12/10/2001 Name and mailing address of the ISA Authorized officer European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016 Durand, J

### INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No
PCT/US 01/19919

| Patent document cited in search report |   | Publication<br>date |      | Patent family member(s) | Publication date |
|----------------------------------------|---|---------------------|------|-------------------------|------------------|
| US 5920694 A                           | Α | 06-07-1999          | US   | 5649104 A               | 15-07-1997       |
|                                        |   |                     | EP   | 0645726 A2              | 29-03-1995       |
|                                        |   |                     | JP   | 7182282 A               | 21-07-1995       |
|                                        |   |                     | EP   | 0616448 A2              | 21-09-1994       |
|                                        |   |                     | JP   | 7049834 A               | 21-02-1995       |
|                                        |   |                     | US   | 5704042 A               | 30-12-1997       |
|                                        |   |                     | US   | 5872923 A               | 16-02-1999       |
|                                        |   |                     | US   | 5781727 A               | 14-07-1998       |
|                                        |   |                     | US 🗽 | 5717856 A               | 10-02-1998       |
|                                        |   |                     | US   | 5717857 A               | 10-02-1998       |
|                                        |   |                     | US   | 5948022 A               | 07-09-1999       |
|                                        |   |                     | US   | 6061717 A               | 09-05-2000       |
|                                        |   |                     | US   | 5819038 A               | 06-10-1998       |
|                                        |   |                     | US   | 5838914 A               | 17-11-1998       |
|                                        |   |                     | US   | 5920693 A               | 06-07-1999       |
| JP 11327789                            | Α | 30-11-1999          | NONE |                         |                  |
| US 5986665                             | Α | 16-11-1999          | GB   | 2317090 A ,B            | 11-03-1998       |